

ArtNet-DMX STAGE-PROFI 1.1

User Manual



**ART
NET**
ETHERNET

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DMX 4 ALL®

Description

The ArtNet-DMX STAGE-PROFI 1.1 is a compact ArtNet (DMX over Ethernet) interface which can be used for ArtNet to DMX or DMX to ArtNet.

With a standard RJ45 network connector the connection to the ArtNet is made.

DMX direction selectable

The DMX direction can be switched depending on use (ArtNet - DMX; DMX - ArtNet).

Adjustable DMX-Framerate

In DMX OUTPUT mode, the DMX framerate is adjustable so that this interface is compatible with "slow" DMX devices.

ArtNet Merge-Function

Two ArtNet sources are output with LTP (Latest) or HTP (Highest) merged on the DMX output.

Muteable LED indicator

The LED indicators on the ArtNet-DMX STAGE-PROFI 1.1 are muteable by ArtNet command (AcLedMute) or time-controlled.

This is helpful to disturbing "points of light" especially on stages.

Easy Configuration

A user-friendly configuration via a web browser allows a fast and uncomplicated setting of all parameters. No special software is required, a normal web browser is sufficient. Thus, the configuration at any time from your PC, smartphone or tablet device. For easy setting of the IP-address, we provide the IP Configurator as a PC tool or Android app available for free. This allows you to leave the network settings unchanged and can easily configure the IP.

High quality and compact design

ArtNet DMX STAGE-PROFI 1.1 is designed with a 3-pin Neutrik metal XLR connector inside a compact aluminum body.

Use together with WiFi components

In conjunction with a WiFi-bridge the ArtNet-DMX STAGE-PROFI 1.1 can be integrated into standard WiFi networks. As WiFi-bridge we suggest: Netgear WNCE2001.

Firmware-Update-Function

In order to take advantage of future features, the ArtNet-DMX STAGE-PROFI 1.1 has a firmware update function.

This can be launched from the browser so that no access to the device is necessary!

Extension Mode with 1024 DMX channels

An additional Extension Mode allows an output of 1024 DMX-channels at the DMX-output.

The Extension-mode is optimized for controlling the MagiarLED-products.

DMX4ALL-Command interface

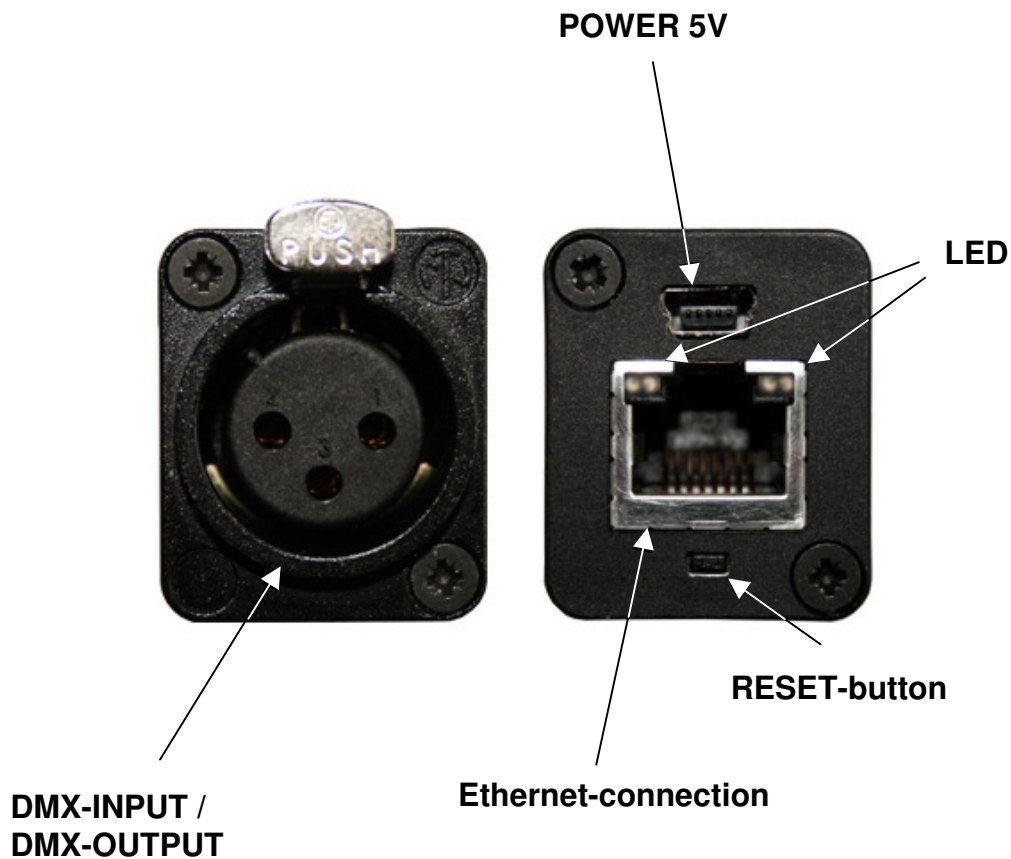
ArtNet DMX STAGE-PROFI 1.1 has another TCP communication interface that is compatible with the LAN-DMX STAGE-PROFI.

This interface uses the DMX4ALL-commands via TCP packets to the port 10001.

Technical data

Power supply:	5V DC from external power supply (included)
Ethernet:	RJ45
DMX:	Neutrik XLR connector 3 pin female Selectable: <ul style="list-style-type: none">- 512 channels OUT- 1024 channels OUT within the Extension Mode- 512 channels IN <small>For DMX-INPUT operation a DMX adapter MALE/MALE is necessary</small>
Protocol:	Art-Net™ or Virtual COM Port with DMX4ALL Commands (just like LAN-DMX STAGE-PROFI)
Dimensions (LxBxH):	75 x 26 x 35 mm

Connection



LED-display

LED green

The green LED flashes if no Ethernet connection exists and shines no-stop if an Ethernet connection is given.

LED yellow

The yellow LED lights up as soon as data are received.

Configuration

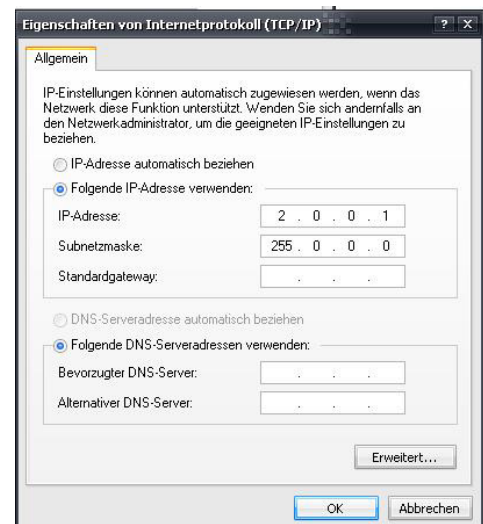
The configuration of the **ArtNet-DMX-STAGE-PROFI 1.1** occurs about an web-interface which can be called about any web browser.

The assigned **IP-address 2.0.0.10** in the delivery status will be used for the web-interface as well as for the ArtNet.



The network settings of the PC must be configured to the **IP-address 2.0.0.1** and the **subnet mask to 255.0.0.0**.

Please consult the ArtNet-specifications for further details.



Please call the IP 2.0.0.10 in the address bar of the web browser for getting the following configuration page:

DMX4ALL ArtNet-DMX STAGE-PROFI 1.1
Version 2.12

The DMX4ALL ArtNet-DMX STAGE-PROFI 1.1 is an ArtNet interface with 1 DMX output or 1 DMX input.
The device provides one ArtNet Node for the input or output port.
You can give the node an own IP address, shortname and longname to differ the node in the network. Please use in one network the IP address 2.x.x.x or 10.x.x.x
The DMX input allows you to set a refresh rate and a DMX fail option.
The DMX output is working with 512 channels (1 Universe) in the Standard mode.
In the Extension mode the DMX output is working with 1024 channels (1+1 Universes).
The DMX-Routing allows you to setup the combination of the 2 universes.
After the given value from the 1st DMX Universe the 2nd DMX Universe is attached.
Example: 450 in the input box means the channels 1-450 from DMX Universe 1 and the following channels 451-953 are the channels 1-512 from DMX Universe 2.
EXTENSION SETUP
The extension setup allows you to set the ArtNet parameters for SubNet, Net and Port.
Please set Net always to 0 if you don't use ArtNet3!

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Global DMX-Output Update

MAIN SETUP

ArtNet Node
IP Address: 2.0.0.10
Netmask: 255.0.0.0
Short Name: ArtNet-DMX SP 1.1
Long Name: DMX4ALL ArtNet-DMX STAGE-PROFI 1.1

Interface
Mode: ☐ DMX-Input ☒ DMX-Output
LED-Indicator: ☐ LED indicator auto off

Factory Defaults
0000 Enter 7319 to set the ArtNet-Interface to factory defaults.

Save



Each node needs an own **IP-address**, so the assignment in the network occurs clearly. According to the ArtNet-specifications please use the IP-addresses 2.x.x.x or 10.x.x.x.

Each other IP addresses are also possible, for example 192.168.1.10. Then the Netmask must be changed to 255.255.255.0 !

For an easier identification you can assign each node with any names.

The **Short-name** is limited to 18 marks and the **Long-name** is limited to 64 marks.

The **Netmask** is to leave in accordance to the ArtNet-specification 255.0.0.0 .

The **Interface mode** can be configured as DMX input (DMX to ArtNet) or DMX output (ArtNet to DMX).

When the option "LED indicator auto off" is active the device LEDs are switched off after 10 minutes operation with permanent network connection.

The **Factory Settings** will be rebuilt with the entry of the number 7319.

SAVE restores the configuration and respectively rebuilt the Factory Settings.

DMX-Output

For using the **ArtNet-DMX STAGE-PROFI 1.1** as a DMX-OUTPUT interface please select the Interface Mode **DMX-Output** in the Global-Settings.

By clicking **DMX-Output** you reach the following configuration-site:

DMX 4ALL ArtNet-DMX STAGE-PROFI 1.1

The DMX4ALL ArtNet-DMX STAGE-PROFI 1.1 is an ArtNet interface with 1 DMX output or 1 DMX input.

The device provides one ArtNet Node for the input or output port.

You can give the node an own IP address, shortname and longname to differ the node in the network. Please use in one network the IP address 2.x.x.x or 10.x.x.x

The DMX input allows you to set a refresh rate and a DMX fail option.

The DMX output is working with 512 channels (1 Universe) in the Standard mode. In the Extension mode the DMX output is working with 1024 channels (1+1 Universes).

The DMX-Routing allows you to setup the combination of the 2 universes. After the given value from the 1st DMX Universe the 2nd DMX Universe is attached.

Example: 450 in the input box means the channels 1-450 from DMX Universe 1 and the following channels 451-963 are the channels 1-512 from DMX Universe 2.

EXTENSION SETUP
The extension setup allows you to set the ArtNet parameters for SubNet, Net and Port. Please set Net always to 0 if you don't use ArtNet3 !

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DMX-OUTPUT

ArtNet Parameter

SubNet: 0 (0)

Net: 0 (00) Only ArtNet3

Port 0: 0 (0) Output channel 1-512

Port 1: 1 (1) Output channel 513-1024

DMX Output

Merge: ☒ LTP (Latest) ☐ HTP (Highest)

Sync: ☒ Enable Sync

Framerate: MAX

Default: ☐ Save current DMX values as defaults

DMX Routing: ☐ Enable DMX Extension Mode

510 Ch. of Port 0 after Port 1 is attached

Save

The ArtNet-parameters **SubNet**, **Net** and **Port** must be set in the sense of the ArtNet-specifications and show the aim for the DMX-data.

The **Merge** settings can be adjusted at LTP or HTP.

Via **Sync** the DMX-output can be synchronized for several devices by using the software MADRIX[®].

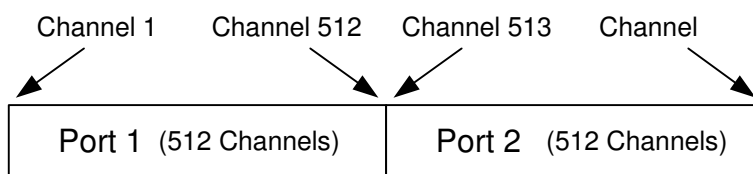
Framerate set the maximum DMX framerate in the output. MAX ist the maximum framerate of ~44 fps (frames per second).

The option **Save current DMX values as defaults** stores the current DMX-data and restores these after turning on.

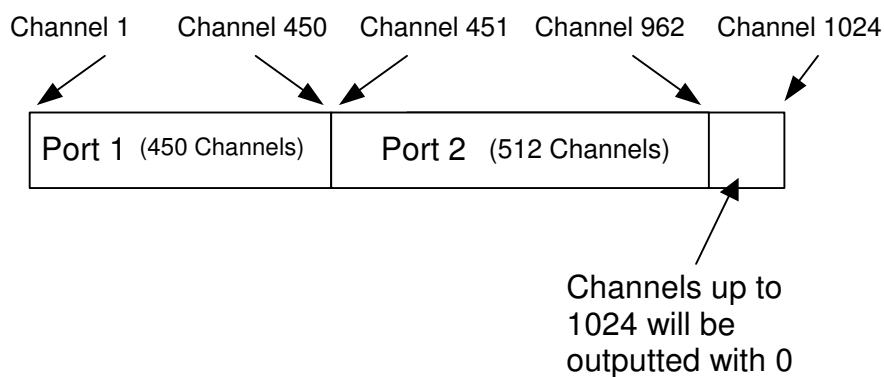
The **DMX Routing** specifies for the DMX-output how the Ports data hang together in the Extension Mode.

The entered value specifies how many DMX-channels from the first Port should be outputted. After this the DMX-channels of the second Ports are attached.

Example: DMX-Routing = 512



Example: DMX-Routing = 450



DMX-Input

For using the **ArtNet-DMX STAGE-PROFI 1.1** as a DMX-Input interface please select the Interface-Mode **DMX-Input** in the Global-settings.



Please use a 1:1 MALE-MALE adapter for the connection which is separately available.

By clicking **DMX-Input** reach the following configuration-site:

DMX4ALL ArtNet-DMX STAGE-PROFI 1.1

The DMX4ALL ArtNet-DMX STAGE-PROFI 1.1 is an ArtNet interface with 1 DMX output or 1 DMX input. The device provides one ArtNet Node for the input or output port.

You can give the node an own IP address, shortname and longname to differ the node in the network. Please use in one network the IP address 2.x.x.x or 10.x.x.x

The DMX input allows you to set a refresh rate and a DMX fail option.

The DMX output is working with 512 channels (1 Universe) in the Standard mode. In the Extension mode the DMX output is working with 1024 channels (1+1 Universes).

The DMX-Routing allows you to setup the combination of the 2 universes. After the given value from the 1st DMX Universe the 2nd DMX Universe is attached.

Example: 450 in the input box means the channels 1-450 from DMX Universe 1 and the following channels 451-903 are the channels 1-512 from DMX Universe 2.

EXTENSION SETUP
The extension setup allows you to set the ArtNet parameters for SubNet, Net and Port. Please set Net always to 0 if you don't use ArtNet3!

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DMX-INPUT

ArtNet Parameter

SubNet: 0 (0) Only ArtNet3

Net: 0 (00) Only ArtNet3

Port: 0 (0) Input

DMX input

Mode: ☒ Use Broadcast ☐ Use Unicast

Unicast IP: 2.0.0.1 only for Unicast

DMX-IN Fail: ☒ NO DATA ☐ HOLD last DMX data ☐ CLEAR all DMX channels to 0% ☐ SET all DMX channels to 100%

Update Rate: DMX framerate DMX IN - Refresh interval

Save

The ArtNet-parameters **SubNet**, **Net** and **Port** must be set in the sense of the ArtNet-specifications and show the source for the DMX-data.

Use Broadcast: The DMX-data will be send to all devices within the ArtNet.

Use Unicast: The DMX-data will be send to a specified device with the **Unicast IP** within the ArtNet.

Several actions are available for the DMX-input in the case of a breakdown of the DMX-signal (**DMX FAIL**)

- | | |
|------------------------------|--|
| NO DATA | - via ArtNet will be no DMX-input received |
| HOLD last DMX data | - the last data will be retained |
| CLEAR all DMX channels to 0% | - all DMX-channels will be set to 0 |
| SET all DMX channels to 100% | - all DMX-channels will be set to 255 |

The **Update-Rate** with which the DMX-input data are outputted can be switched in several times.

On change data transferred only the DMX-input data if these changes, max. however every 0,1 seconds.

DMX Framerate transferred the received DMX-values as soon as a frame has finished. So, the framerate of the incoming DMX-signal will be used for the Update-rate.

DMX4ALL-Command support

The **ArtNet-DMX STAGE-PROFI 1.1** interface has an additional communication-port which can receive the data from TCP-bundle at the port 10001. This port uses the DMX4ALL-Commands in this way, that the **ArtNet-DMX STAGE-PROFI 1.1** interface is compatible to the LAN-DMX STAGE-PROFI.

TCP-Control

For control the interface directly with the TCP-connection please use the preset IP-address and use the port 10001. The sent and received data are RAW-data bundle.

Please take the DMX4ALL-Commands which are possible from the separate DMX4ALL-Command description.

VCP-Control

For the control with a COM-port a TCP-VCP-program must be installed which provides a virtual Com port (VCP).

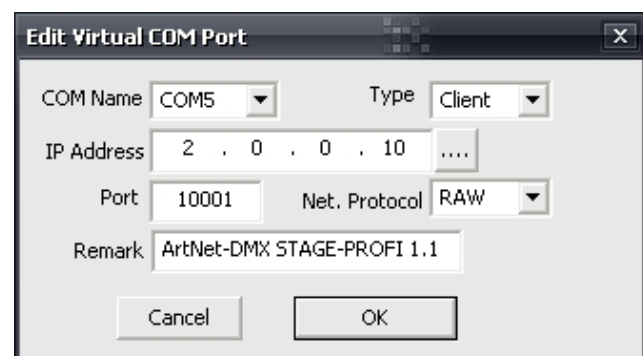
We recommend the tool *Serial to Ethernet Connection* which has been tested by us. You find this tool on the enclosed CD and as an download in our support-sector.

During the installation you have to enter a password (see illustration).

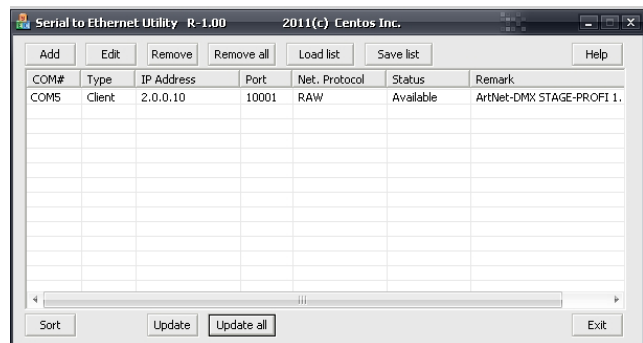


After the installation start the tool „Sentos SEC” which is on the desktop. Now add a VCP with *Add* and specify the parameter for the VCP-port.

Make sure, that you use the IP which is adjusted about the web browser.



Finally, click **Update all** in the main menu window for activating the VCP. Now, the status became *Available* and the COM-port will be displayed in the device manager.



Factory Reset

The **ArtNet-DMX STAGE-PROFI 1.1** can be reset into the delivery status with the button next to the RJ45 connector.

Proceed as follows:

- Turn off the device
- Push the button and hold down
- Turn on the device
- Yellow LED flashes
- Release button
- Push button again and hold
- Green and yellow LED flash ~10 seconds alternately
- Meanwhile release button
- Now, the reset will be executed and the LEDs lights up 3 times simultaneously for confirmation

Alternatively, you can restore the factory settings via the Web browser:

- Open the Main Settings inside the Webbrowser
- Enter in the input field the code „7319“ for Factory Defaults
- Click *Save*
- Wait minimum 10 seconds

Update Firmware

The **ArtNet-DMX STAGE-PROFI 1.1** has an update-function which enables transferring prospective firmware-versions.

Proceed as follows:

- Turn off the device
- Push button and hold
- Turn on the device
- Yellow LED flashes
- Release button
- Generate a network connection to PC
- Start the update-software **DMX4ALL LAN-Updater**
- Select from the list the ArtNet-DMX STAGE-PROFI 1.1
- Click *Firmware-Update*
- Select and confirm Firmware-data (.bin)
- Please wait until the update has finished



If an error occurs you can begin from the start anytime

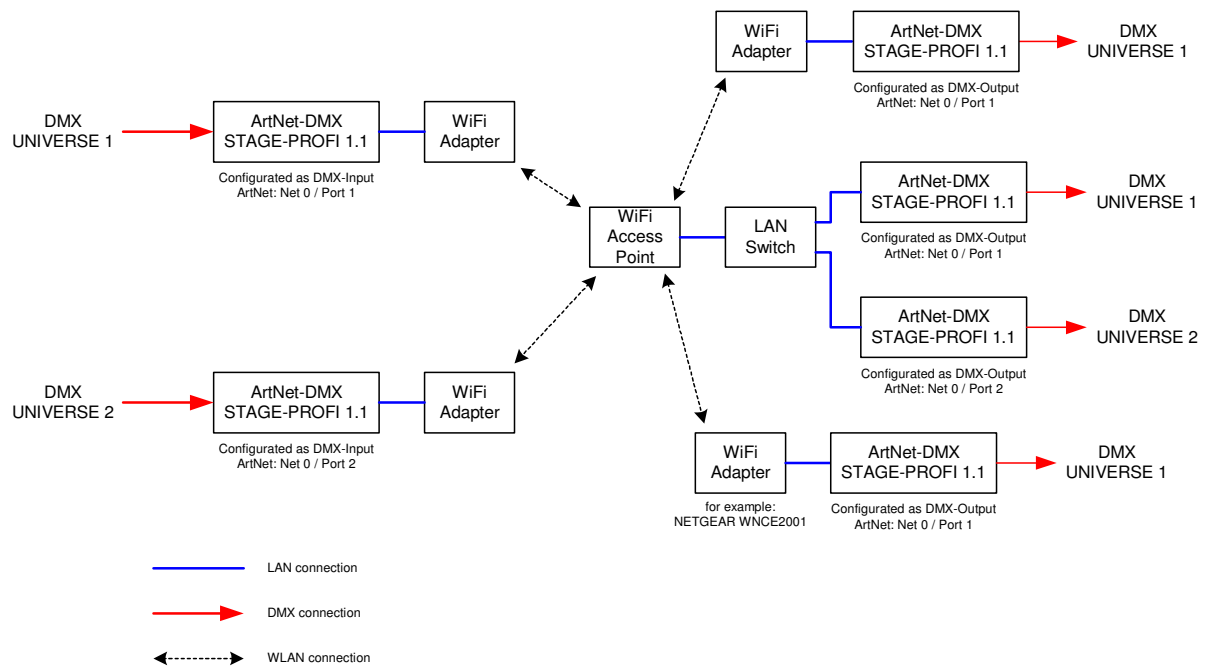
Alternatively, you can activate the firmware update through the web browser:

- Open the Firmware Update page inside the Webbrowser
- Enter the code „1379“ inside the input field and klick *Send*
- Start the update-software **DMX4ALL LAN-Updater**
- Select from the list the ArtNet-DMX STAGE-PROFI 1.1
- Click *Firmware-Update*
- Select and confirm Firmware-data (.bin)
- Please wait until the update has finished
- Click *Back to Mainpage* inside the Webbrowser

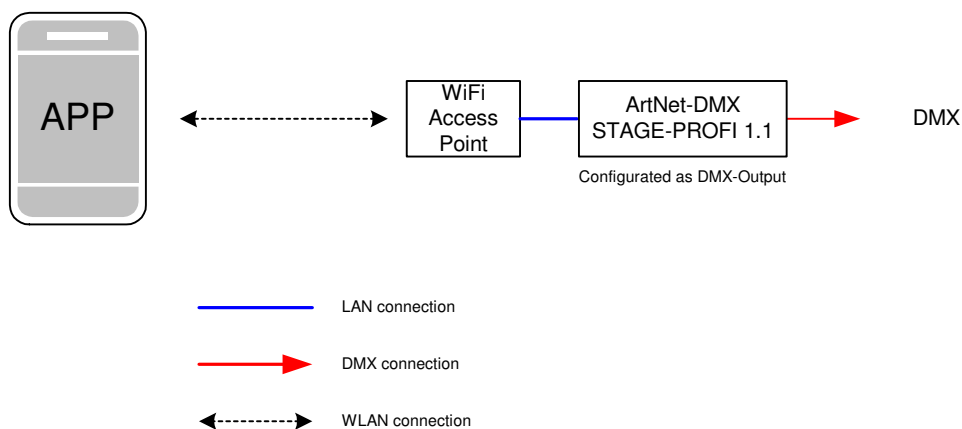
DMX over WLAN

The **ArtNet-DMX STAGE-PROFI 1.1** can be used together with WiFi components to transfer the DMX data wireless. It is possible to transfer one or more DMX universes.

The following drawing shows the use of the components:



Alternatively, an app that outputs ArtNet on a smartphone or PC can be used together with the ArtNet-DMX STAGE-PROFI 1.1:



Equipment

XLR-cable 3pin

Lengths:

1m, 5m, 10m, 15m



XLR-adapter

Available in various designs

XLR 3 male – XLR 3 male

XLR 3 male – XLR 5 female

XLR 3 female – XLR 5 male



Risk-Notes

You purchased a technical product. Conformable to the best available technology the following risks should not be excluded:

Failure risk: The device can drop out partially or completely at any time without warning. To reduce the probability of a failure a redundant system structure is necessary.

Initiation risk: For the installation of the board, the board must be connected and adjusted to foreign components according to the device paperwork. This work can only be done by qualified personnel, which read the full device paperwork and understand it.

Operating risk: The Change or the operation under special conditions of the installed systems/components could as well as hidden defects cause to breakdown within the running time.

Misusage risk: Any nonstandard use could cause incalculable risks and is not allowed.

Warning: It is not allowed to use the device in an operation, where the safety of persons depend on this device.



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